

Application number: 09/396005

Art Unit: 3621

Applicant: Khai Hee Kwan

Examiner: Le, David Q.

Title: Method, apparatus and program to make payment in any currencies through a communication network system using prepaid cards

REMARKS

In the examiner's response dated 10/04/2002 herein refer to ("Action Letter"), two main prior arts were evidenced to show prima facie, namely Taylor, Multi-Application data Card (US 5530232) herein refer as ("Taylor") and Stimson, Pre-paid Card System and Method (US 5577109) herein refer as ("Stimson"). In particular the examiner had noted claim rejections under 35 USC 112 for claims 1-12 and further under 35 USC 103(a). By our cancellation of claims 1-12 above and new addition of claims 13-25, we respectfully ask the examiner for further consideration. The examiner's rejections are traversed as below.

Rejection under 35 USC 112, First paragraph

We noted the examiner's remarks and have accordingly corrected and incorporated the requirements now as New claims 13-25. We are grateful that despite a very poorly drafted application, the examiner manages to provide useful insight for our amendments.

Rejection under 35 USC 103(a)

Our analysis here takes into account our New Claims 13-25 where we have retained some of the elements from the previously cancelled Claims 1-12 in particular elements, which we believe could not be sustained by a 35 USC 103(a) rejection. For example, in Claim 13, we provided methods for a user-to-user payment between accounts, which is not obvious or suggested by both prior arts. In Claim 14, we claim a method for storing a monetary value in any currency, for a fixed period and associating this amount with account identifier and password. In Claim 15, we detailed a method to pay a merchant and in Claim 16, to convert the currency using a prepaid card. Our merchant payment method uses dynamic codes that are not obvious in both prior arts. We have also limited our network to the Internet as expressed in all Claims 13-25. Although the examiner has expressed that this is obvious we respectfully disagree on the ground that the Internet is already well known during the conception of both said prior arts (cir 93-94). We can only speculate that the fact no teachings were made of the Internet (open network) could mean that the inventors at that time were aware of security risks associated by linking to the open network in their unmodified inventions or they did not contemplate extending the use of their invention for the internet at the outset. Even though at the time the claimed invention was conceived (cir 99) and Internet payment systems are mushrooming, the fact still remain being that only credit card type of transactions were popular. Much of the effort to improve security has been to encrypt data between the browser and server such as the https protocol. Nothing was focussed on dynamic data.

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Motivation to combine prior arts

Taylor teaches a multi-application data card capable of storing various applications including as mentioned by Taylor, money currencies as but one of its features. Taylor also taught that such a card may be used for mass transit by debiting its stored value at each use (Col 7, Ln 1-2). Therefore it is inherent that any fund stored must therefore be in the card itself. In Stimson, we find the main teaching is to recharge and activate a prepaid card over a dedicated purchasing network. Stimson, nevertheless provided an example of using the prepaid card for purchases at a point of sale (Col 7 Line 1-25) using security code and PIN (Col 7, Ln 9-11). In Stimson, we can conclude that money is stored in a remote host with the card as the key to access this money for payment purposes.

For a prima facie case to be established beyond any reasonable doubt the examiner has to show evidence of reason, suggestion or motivation in these two prior arts to combine and whether the combined elements will actually arrive at the claimed invention. On the former, evidence provided by examiner and our inspection of both prior arts, we respectfully disagree with the examiner's findings.

There is no basis for concluding that an invention would have been obvious solely because it is a combination of elements that were known in the art at the time of the invention. See Fromson v. Advance Offset Plate, Inc., 755 F.2d 1549, 1556, 225 USPQ 26, 31 (Fed. Cir. 1985). Instead, the relevant inquiry is whether there is a reason, suggestion, or motivation in the prior arts that would lead one of ordinary skill in the art to combine the references, and that would also suggest a reasonable likelihood of success. See, e.g., In re Dow Chem. Co., 837 F.2d 469, 473, 5 USPQ2d 1529, 1531-32 (Fed. Cir. 1988). Such a suggestion or motivation may come from the references themselves, from knowledge by those skilled in the art that certain references are of special interest in a field, or even from the nature of the problem to be solved. See In re Rouffet, 149 F.3d 1350, 1355-56, 47 USPQ2d 1453, 1456 (Fed. Cir. 1998); Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc., 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1630 (Fed. Cir. 1996). The table below summarized the pertinent points where motivation to combine is either missing or insufficiently articulated.

Claim #	Examiner's Reason	Comment
1	The use of email verification. The examiner disclosed that this is well known in the art.	What could have motivated both Taylor and Stimson when they stressed fully the unqualified security with their inventions?
1	The examiner disclosed that taken together, Taylor and Stimson teach all	There is no suggestion or motivation to combine, there is no

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	<p>that was needed to set up a prepaid card system as cited in claim 1. Such a system would have been motivated to provide a flexible, convenient, yet safe and secure payment system for consumers and providers of goods and services using non-cash electronic transactions.</p>	<p>teaching of converting local currency to foreign currency. There is no teaching of sending codes from merchant server when payment is requested. The motivation suggested by examiner is not found in either prior arts particularly in reference to the internet and is not one for combining the prior arts. If we have to accept that the Internet is an obvious element missing, then it is equally obvious that either one of the prior arts is capable of providing a flexible, convenient, yet safe and secure payment system. Therefore, what is the reason to combine other than literally trying to reach this claimed invention?</p>
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With respect, the examiner has not offered sufficient independent evidence to support the decision to combine elements from different references, arguing only that the suggestion to combine references may come from the knowledge and common sense of a person of ordinary skill in the art. See, e.g., In re Bozek, 416 F.2d 1385, 1390, 163 USPQ 545, 549 (CCPA 1969). That knowledge may have been within the province of the ordinary artisan does not in and of itself make it so, absent clear and convincing evidence of such knowledge. See C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 297-98, 227 USPQ 657, 667 (Fed. Cir. 1985). The examiner thus failed in this case to establish why one of ordinary skill would have found it obvious to combine the numerous claim limitations in a particular way to achieve the claimed invention.

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Detailed Response

In Claim 1

The examiner has chosen instead to focus on highlighting the apparatus elements as a way to show anticipation by the prior art. We do recognize our initial error in combining apparatus elements in a method claims and hence our new claim 13 is provided without said apparatus elements.

However for a 103(a) rejection to be upheld, the prima facie case of obviousness requires that the references Taylor in view of Stimson to teach or suggest the claimed subject matter as a whole. In re Rinchart, 531 F.2d 1048, 189 USPQ 143, 147 (CCPA 1976). In the examiner's disclosure, the examiner merely referenced this to "Taken together, Taylor and Stimson teach all that was needed to set up a prepaid card system with all the limitations as cited in Claim 1. Such a system would have been motivated to provide a flexible, convenient, yet safe and secure payment system for consumers and providers of goods and services, using non-cash electronic transactions." (at page 4 of Action Letter).

We do not agree that this is the standard of suggesting the claimed subject matter as required by law. The proper standard is for the examiner to explain why the prior art(s) would appear to show the claimed subject matter and not simply the general aspects of the invention by identifying the elements; some of which are missing but nevertheless are summoned based on common knowledge such as the Internet and convertibility. Failure of the examiner to provide this necessary suggestion or motivation can only mean that obviousness rejection is based on hindsight. The invention that was made, however, does not make itself obvious; that suggestion or teaching must come from the prior art(s). See eg Uniroyal Inc V Rudkin-Wiley Corp., 837 F.2d 1044, 1051-52, USPQ 2d 1434, 1438 (Fed Cir 1988) and Fromson V Advance Offset Plate Inc., 755 F.2d 1549, 1556, 225 USPQ 26, 31 (Fed Cir 1985) (the prior art must suggest to one of ordinary art the desirability of the claimed invention). To illustrate this inadequacy in accordance to examiner's analysis of apparatus elements as extracted from page 3 and 4 of Action Letter, we have tabulated the listed elements below:

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		a single currency to other currencies	Taylor teaches in multi currencies, what is the motivation to convert again?
Multi-Applications are fixed by design	Charging or activate of economic value	The economic value is fixed	Reason to combine is missing. Stimson's invention actually premise on able to charge or activate the prepaid card

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			which is not claimed here.
PIN, Voice print, signature	Security Code on card	Security code on card plus dynamic purchase code generated by merchant host on purchase	Old element but second element on dynamic data is not taught. This second element is not obvious since both references teach of providing security code to host and not for merchant server to create verifiable dynamic code. Reason to combine is missing and the combination will not reach the dynamic codes.
Embedded in chip or magnetic strip	Clear text masked under a scratch off material	Security code is hidden in scratch off. Purchase code is dynamic. Can use User identifier and password in lieu of security code mainly for fund transfer between users..	As above.
NA	NA	Internet Capable	Security risks inherent with both Taylor's and Stimson's unmodified invention.
NA	NA	Convertibility	No motivation as Taylor already

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TABLE A

Apparatus elements

Taylor teach	Stimson teach	Claimed invention	Comments
Multiple applications stored in a card including multiple currencies	Single application to activate and charge prepaid card and for payment of services and goods	Single application for payment with currency conversion	Reason to combine missing. Also note that Taylor actually teach away from single application concept. In fact the resultant from the two teachings will be a prepaid card with multiple application having both remote and local access keys but would still suffer as the convertibility factor is missing.
Card system	Prepaid card	Prepaid Card	Old element
Centralized system	Host computer coupled with a call processor	Host server with processor	Old element
Stored cash value in card	Prepaid or loaded to host system	Prepaid stored in host as prepaid card account or in user's account	Old element
Multiple currencies	One currency	Conversion from a single currency to other currencies	No teaching. Since Taylor teaches in multi currencies, what is the motivation to convert again?
Multi-Applications are fixed by design	Charging or activate of economic value	The economic value is fixed	Reason to combine is missing. Stimson's invention actually premise on able to charge or activate the prepaid card

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			teaches multi-currencies
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Further, the Federal Circuit has added that when more than one reference or source of prior art is required in establishing the obviousness rejection, "it is necessary to ascertain whether the prior art teachings would appear to be sufficient to one of ordinary skill in the art to suggest making the claimed substitution or other modification. (In re Fine, 837 F.2d 1071, 5 USPQ 2d 1596, 1598 (Fed.Cir 1988)). Since there is no teaching leading to dynamic codes, it would not be obvious to make the unknown modification. Moreover, in Ex parte Levengood, the board stated that "...that is which is within the capabilities of one skilled in the art is not synonymous with obviousness... unless that logic and reasoning also supplies sufficient impetus to have led one of ordinary skill in the art to combine the teachings of the references to make the claimed invention" Ex parte Levengood, 28 USPQ 2d 1300 at 1301-02 (Bd Pat App & Inter 1993).

The difficulty here is that the examiner has to acquire evidence of sufficient impetus or motivation to lead to the combination which must be supported by logic and reasoning. Another approach is to define the problem and consider whether the prior arts have any solutions or suggestions that will arrive at the claim invention.

Defining the problems.

One of the problems is to find a workable solution to reduce data interception in an open system hence a safer system other than using encryption which was taught in both prior arts. The state of the art as reflected in Stimson and Taylor seemed to suggest the use of encryption, voiceprint, PIN or passwords, which have no bearing to dynamic codes as in this claimed invention. Moreover the main advantage here is that these codes are dynamic distinguishing both Stimson and Taylor which transmit fixed data or data that are unique to the user/card. As both touched on the same problem this recognition means an ordinary skilled in the art would have considered Stimson and Taylor but still leave no evidence of leaping to dynamic codes. Had the solution in the claimed invention been iris-scan or other form of common biometrics then one would be able to conclude that these would be obvious in the light of voice print and within the state of the art.

Another problem is to find a way for one user to transfer funds in any currencies to another using a prepaid card. Taylor taught of using multiple currencies to purchase goods and services while Stimson made no mention of foreign currency presumably this invention is made for local use. If neither prior arts made any mention of user-to-user payment then the only possibility is derived from common knowledge prevailing at the time the claimed invention was made (cir 99).

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However, we are not able to find any evidence supporting such knowledge prevailing at that time, which can only mean hindsight was applied.

The second part of this analysis deals with the methods employed by the claimed invention. In particular, we have summarized the methods as below for easy identification and discussion below.

Table B

Payment methods

Taylor teach	Stimson teach	Claimed Invention	Comments
Authorization criterion is based on presenting user's data to vendor where the vendor will authenticate the data and authorize the transaction which is updated back on the card	Providing activation code or security code to pay for the purchase as per normal prepaid card. Stimson's inventiveness is where the card can be activated or recharge onsite.	During payment, merchant server generate purchase codes to main host and to buyer. Buyer need to provide this code to the main host where upon both codes are matched.	It does not appear that both prior arts taught the generation of codes from the merchant for purchasing purposes. No motivation in prior art.
No teaching of transferring funds from one acct to another	No teaching to show funds can be transferred between accts	Payment from one account to another account within the system by applying a user identifier and password in lieu of prepaid card's security code.	No motivation or suggestion from prior arts.
Storing of various currencies but not converting one to another.	No teaching	To convert to another currency as a stored value with appropriate formula	No motivation to modify since already in other currencies.

As can be seen in Fig C below, it shows the current state of the art as well as the teachings of Taylor and Stimson where authentication of the cards are sent to the host authority. This means either a code or voice print data is sent as can be seen by following the steps 1 to 3. However in

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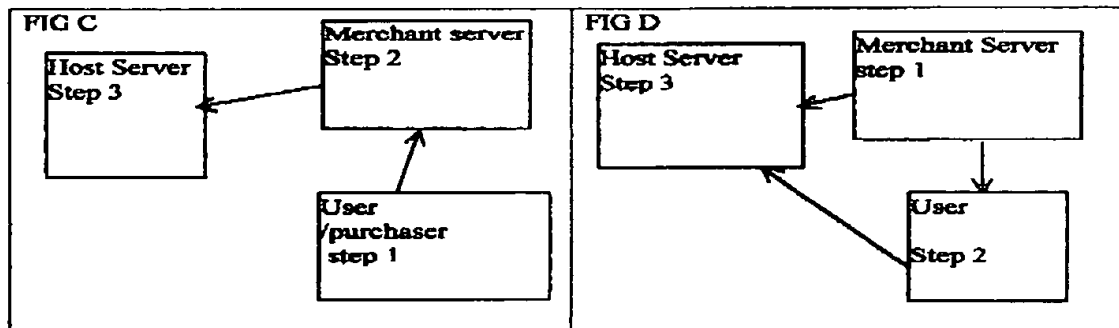
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Fig D which shows the claimed invention, we have added dynamic codes that are issued by the merchant server on receiving a payment request. These dynamic codes together with the static code found on the prepaid card ensures that the merchant is valid and increased level of security. Step 1 in Fig D shows that the merchant server actually sent the dynamic code first to both user

and host and at step 2 the user provides the code and security code to Host at step 3.



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Claim 2

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While we acknowledged that Taylor teaches multiple currencies, this by itself does not make it obvious for one currency to be converted to another on demand as claimed in this invention. Obviousness requires teaching or motivation to combine both said prior arts, which is lacking.

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Claim 3-12

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As we have dropped the advertisement element in our new claims, the only objections remained are those of Taylor and Stimson which we have elaborated above. However, we retained specific elements such as the application of a user identifier and password in a prepaid card account and Internet as discussed below. They are incorporated in the new Claims 13-25.

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The examiner had disclosed that while there is no teaching about changing the passwords, it is however obvious to one skilled in the art. (at page 7 under Claim 7-8.) The examiner further provided the following motivation being to maximize the security and integrity of the system.

- 5 Similarly, the examiner disclosed that even though both Taylor and Stimson did not call out the Internet as a network, it is however obvious to one skilled in the art at the time the invention was made and this would have been motivated by the global application of such payment system. (at page 7 Claim 4 con't)
- 10 First of all the examiner can only satisfy the burden of showing obviousness of the combination "only by showing some objective teaching in the prior art or that knowledge generally available to one ordinary skill in the art would lead that individual to combine the relevant teachings of the reference". Re Fritch, 972 F.2d 1260, 1265, 23 USPQ2d 1780, 1783 (Fed Cir 1992). Simply
- 15 stated that even if the knowledge is within one skilled in the art is not synonymous with obviousness... unless that logic and reasoning also supplies sufficient impetus to have led one of ordinary skill in the art to combine the teachings of the references to make the claimed invention (Ex parte Levengood, 28 USPQ 2d 1300 at 1301-02 (Bd Pat App & Inter 1993))
- 20 In Taylor, a PIN is required which is the only authority to determine the ownership of the card and to access the various applications stored in the card. To enhance security as an object here would mean that application providers in the card would have their own requirements rather than a general one key access as suggested by Taylor.
- 25 Notwithstanding this, Taylor also suggested the use of voiceprint as an alternative. However, by the same token that it is difficult if not impossible to change ones voice print as compared to a password provided by this invention, this difficulty is better serve to maximize security. In short why would one skilled in the art substitute a superior method suggested by Taylor by using a voice print to one using a password when the degree of security is higher with a voice print. The motivation must be for better security not lower or equal.
- 30 In the instance of Stimson, said security code is mainly used for activation, recharging and purchasing at point of sale. However, Stimson made a reference to using a PIN in addition to the security code as well for added security.
- 35 In the case of this invention, the user identifier and password are to facilitate the payment to other users (non merchant) and the usage of said identifier and password is in lieu of the security code once they have activated their account identifier over a network. Security is less of a motivation here then the simplicity of able to remember ones user identifier and password then a security code for authorizing payment and to pay someone using their user identifiers. Furthermore, it is

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unlikely that the payee will provide his prepaid card security code in order to receive payment given the same code can also be used for authorizing payment as well. In our original submission this was Claim 5 and amended as Claim 13 as a method claim.

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Summary

10 Conclusion.

The amendments and the arguments presented above are believed to traverse the Examiner's rejection under 35 U.S.C. §103. Reconsideration of the rejection is requested.

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of any application, any patent issuing thereon, or any patent to which this verified statement is directed.

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Date: 28 Dec 2002


Khai Hee KWAN

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